fee schedule and that the fee for a nephrectomy was clearly set forth. This medical director deliberately by-passed the fact that the present fee schedule lists all fees as minimum and provides that higher fees shall be warranted where unusual difficulties or time factors are involved. Further, he contended that the doctor had no complaint because he had received the case of an unknown patient in an emergency. To top it all off, when told that the life-saving nature of the case had probably saved the insurance carrier a $6,000 death benefit, he stated that this was a problem for the claims department of the carrier and not the medical department. The overall picture of an injured workman, the potential loss of life and of money, and the duty of the insurance carrier to its beneficiaries and physicians alike, was left out of consideration.

In holding an impartial hearing in this case and in granting the physician's request for a fee higher than the minimum, the Industrial Accident Commission has recognized that a minimum fee does not necessarily represent a maximum. The Commission has also served notice on insurance carriers that the rights of physicians are to be protected under the structure of the laws governing industrial accidents. Likewise, it has in effect notified all employed persons in California that the best in medical and surgical care is available to employees injured during the course of their employment, regardless of the cost of such care.

The California Medical Association worked for more than four years, often against tremendous odds, to secure the adoption of a more complete, more up to date, schedule of industrial fees by the Industrial Accident Commission. The Association has offered its services to its members who are subjected to chiseling tactics by employers or insurance carriers, and it has been able to effect payment of proper fees in various cases where deductions had been made by the employer or his agent. In reaching its recent decision, the Industrial Accident Commission has proved that it looks beyond the monetary interest of the insurance carrier and into the overall benefit of the injured workman and those who care for him. This is the spirit of the industrial compensation laws of the state and the medical profession may take cheer from the existence of a Commission with a firm conviction of its own obligations and authority and the courage of its convictions.

EDITORIAL COMMENT

BCG Vaccination

As BCG will probaby be used soon in California among certain groups in the child population, it would seem pertinent to review certain aspects of this still debatable subject. It is of special interest to pediatricians, as they will be giving it, if it ever be universally adopted. It will be given in the age group with which pediatricians have to deal. If adopted on a voluntary basis, as it should be at first, they will either have to give it or give counsel to the parents as to the advisability of its acceptance. It will be their job to explain the failures, the complications of its use, the running sores which have often accompanied the vaccination, and any disaster, isolated or wholesale, following its use. It will be necessary to explain to the public, after years of careful education about the advantages of a tuberculin-negative child population, why we suddenly are aiming at exactly the opposite result.

Certain points are now generally accepted by all workers interested in BCG. First, it is harmless as now given and with the manufacture of the vaccine carefully controlled and limited. At present the danger of BCG inoculation may be said to be potential rather than immediate, as no deaths have occurred in the United States attributable to its use.

Secondly, its use is a poor substitute for the non-contact of children with tuberculous disease. Its use should in no way replace the intensive efforts to abolish contacts of open cases of tuberculosis to susceptible individuals. In the most enthusiastic reports of the efficacy of BCG there are still records that some individuals so inoculated become victims of tuberculous disease. Thirdly, then the use of BCG should be restricted to tuberculin-negative groups in which the possibility of escaping contact, and therefore infection, is practically impossible. Suggested for this group would be the children of American Indian, oriental, negro, and Mexican parentage, or other groups living substandardly. To this group might be added children of parents already proved to have tuberculosis and returning to the home from sanatoria, and in an older age group, students in the medical sciences, and members of the armed forces going into oriental countries where morbidity from tuberculosis is high.

The debatable question is the efficacy of BCG as a prophylaxis against tuberculous infection. Review of voluminous international literature failed to reveal irrefutable evidence of the effectiveness of the vaccine, and the reports have not gained wide acceptance among pediatricians. Studies in Scandinavia and in South America suggest a relationship between vaccination and decreased incidence of the disease in children over a short period of time, but show no valid statistical proof of long-time benefits.

It is not enough during scientific studies on BCG to state that controls "live under similar conditions." The exact control methods should be stated and elaborated if authors expect

their results to be believed. Recent reports in America have been at fault in this regard. Taking as controls the groups in which the parents refuse the vaccination may lead to very erroneous conclusions, as was brought out by Levine and Sachett in their recent study. (Am. Rev. Tuberc., 1946, 53:517.) It is indeed a pity that, with the enormous number of children who have now received BCG, the study made by Levine seems the only one properly reported on a scientific basis, with a use of alternate cases. From his study the efficacy of BCG can be very seriously questioned, Levine's control group showing practically the same incidence of disease as the inoculated group. Carefully controlled studies such as these naturally carry more weight with pediatricians in deciding on the use of BCG than those less carefully performed.

The question to ask ourselves is this: Are we willing to use a method of partial protection, the efficacy of which is still debatable 25 years after its first use, to possibly hasten the winning of a battle, the end of which may be in sight?

The ideal method of tuberculosis control is the finding and removal of possible contacts before infection to others has taken place. BCG is a poor substitute for this, and also by its use universally we would lose our most potent screen in finding cases. This point has not been much discussed in the literature. If any widespread use of BCG be accepted, it will immediately make useless the tuberculin test, the most valuable single item in the determination of the incidence of infection, and in the sifting of cases among the young for further study. It is one of the most accurate biological tests known, although it has suffered considerably from misinterpretation and belittling from those not using it to the same extent as pediatricians use it. Frequent surveys with the tuberculin test is still the best method of telling ourselves how we are doing with the job of tuberculosis eradication.

California, by nature of its various groups of child population, has an unusual opportunity for study of the efficacy of BCG. Its use should be limited to these groups already mentioned. It should be given experimentally, on a voluntary basis, and scrupulously controlled. If used, it should be understood as no substitute for removal of contact. If these conditions be met, pediatricians, and the medical profession in general, should and will give their cooperation. On this basis, the use of BCG would give us an experiment close at home, one which would help us decide for ourselves this much debated question. We are all prone to pay more attention to things we do ourselves. It is to be earnestly hoped that in at least one of the contemplated studies in California we will gain information about the efficacy of vaccination, and that the studies will not all become just "another project."

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The attentuated, bile-treated culture of bovine tubercle bacilli known as BCG (Bacille-Calmette-Guerin) is receiving increased attention as an effective means of producing active immunity against tuberculosis. Recognizing this, anti-tuberculosis workers of the United States Public Health Service have been interested in developing a program for its use in the United States.

On September 7, 1946, a conference on BCG vaccination was called by the Tuberculosis Control Division of the USPHS at Bethesda, Maryland. Participating were many of the leaders of the anti-tuberculosis movement in the United States. As a result of this conference it was agreed that BCG vaccination confers increased resistance to tuberculosis, that medical literature fails to reveal any proven case of progressive disease as a result of BCG vaccination and that BCG vaccination can be done without severe local reaction. The intracutaneous method of vaccination was recommended for use at present. In the studies presented at this conference, BCG vaccination converted a large percentage of non-reactors to the tuberculin test into reactors. The need for re-vaccination and the time interval between the vaccinations was not decided. It was recommended that a single laboratory be established for the Tuberculosis Control Division to produce BCG vaccine for the entire United States for use in research programs proposed at the conference. It was further proposed that extensive investigations should be carried on cooperatively with organized research groups throughout the nation, especially in population groups highly exposed to tuberculous infection. It was also recommended that the Tuberculosis Control Division set up a control study in a community with a population of 100,000 or more to determine immediate and long range results.

A second conference was called on March 8, 1948. In this conference Dr. Holm of Copenhagen reported that varied use of BCG vaccine was contemplated for the ensuing year in Europe. In all, ten countries are expected to be able to test and vaccinate the school children within the next 18 months. Dr. Holm is at present engaged in organizing vaccination teams to be sent out into various countries for the purpose of vaccinating as many as possible. Some fifteen million people are expected to be vaccinated under this plan.

Dr. Carroll Palmer of the USPHS pointed out that the situation in this country is different from that in Europe. Whereas in Europe the vaccination of entire populations may be quite justified, it would seem advisable in the United States to limit vaccination to selected groups and to use as many control series as possible.

Recently BCG vaccine programs have been developed by the New York State Department of Health, Herman Hilleboe, M.D., Commissioner, and released jointly by the New York State Department of Health and the Medical Society of the State of New York. This is based upon the assumption that "BCG vaccination is one of the known methods of reducing morbidity and mortality rates from tuberculosis and at present is the only known practical method of inducing specific resistance to tuberculosis." It has, therefore, been recommended for use in three selected groups:

1. In groups of occupational exposure to tubercle bacilli, such as nurses, medical students and hospital personnel.
2. In population groups with high tuberculosis morbidity and mortality rates.
3. Where there has been a known exposure to tuberculosis or where an exposure is likely to occur as in the households of patients returning from hospitals and sanatoria.

Objection has been raised chiefly on the part of the pediatricians, who apparently feel that the conversion of non-reactors to tuberculin to reactors, even by the use of an avirulent bovine culture, would handicap them in their attempts to diagnose clinical tuberculosis in children. If the program called for the wholesale immunization of the entire school population, this objection might be valid. However, since it is contemplated to limit the use of BCG vaccine strictly to high incidence areas and contacts who are still negative, it seems likely that the pediatricians would not find their problem in this regard a serious matter.

Use of BCG vaccine is of course only one factor in the battle against tuberculosis. It is perhaps a relatively minor one, yet the final, virtual elimination of this disease will come about in the reasonably near future only through the use of every known method of tuberculosis control.

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March 15, 1948.